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C-A OPERATIONS PROCEDURES MANUAL

15.3.1.7 PEI Power Supply Transistor Replacement Procedure

(Booster/AGS Ring Power Supply Systems Group Procedure EPS-A-007)

Text Pages 3 through 3

Note: This document was formerly a C-A Group Procedure. The content of the group procedure was reviewed by the Technical Supervisor. All approvals and/or issue dates of the original group procedure are maintained for present use.

Hand Processed Changes

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Approved: Signature on File
Collider-Accelerator Department Chairman Date

M. Bannon

Booster/AGS Ring Power Supply Systems
Group Procedure EPS-A-007
Revision 00

15.3.1.7 PEI POWER SUPPLY TRANSISTOR REPLACEMENT PROCEDURE

SYMPTOM: Whenever a transistor fuse fault is registered on any of the PEI Power Supply's, at least two transistors have blown. The power supply cannot be turned back on without replacing the blown fuses and transistors

REPAIR: The following steps are required to replace the blown fuses and transistors.

1. Identify the blown fuses by examining which trigger fuses have blown.
2. Remove blown fuses and associated transistor.
3. Replace the blown fuse with the proper fuse.

BOOSTER SECTION - 63 OR 80 AMP FUSES

MAIN SECTION - 35 OR 63 AMP FUSES

4. When replacing the transistors note the direction they were removed and make sure they go back in the same way.
5. Make sure the transistor is sitting on the heat sink properly. there should be guide pins to align the transistor but if they are not there center the transistor in the clamp. **First bring the bolts on** either side of the clamp down evenly then turn each clamp bolt a ¼ turn at a time until the proper torque of 50 in/lbs. is achieved.
6. Solder the blue lead on to the diode.
7. Put the trigger microswitch back over the trigger fuse.
8. Bring the power supply to standby and check there is no “transistor fuse” fault indication on the front panel.
9. Ask MCR to send a function of approx. 100 amps and then turn Power Supply “on”. If it looks ok then turn Power Supply off, have MCR restore the running function.

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